NAVSUP

NAVAL SUPPLY SYSTEMS COMMAND

NAVAL INVENTORY CONTROL POINT

Performance Based Logistics

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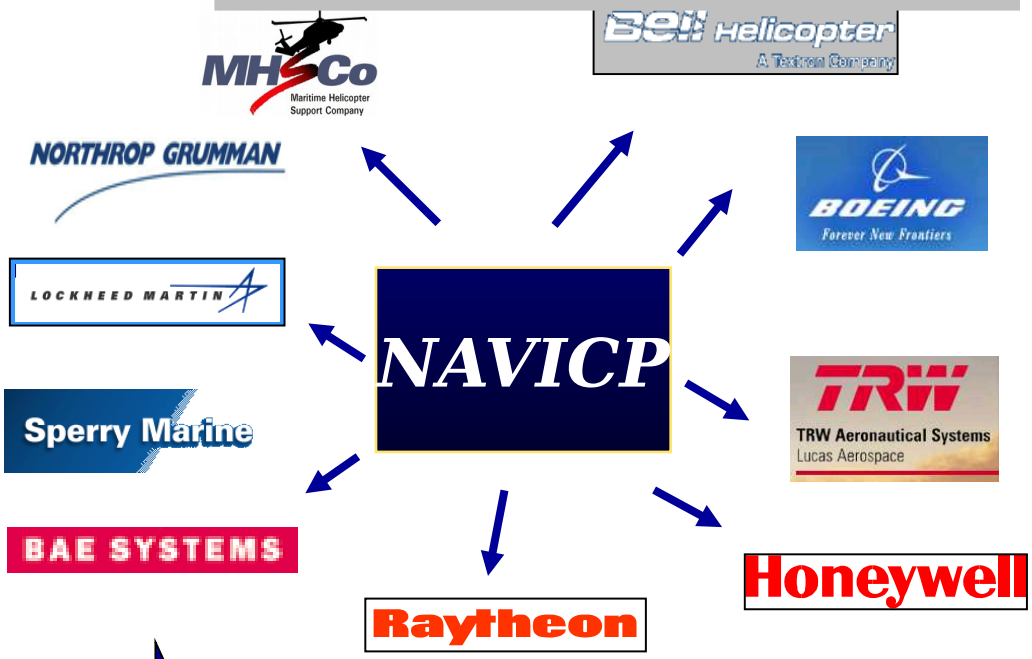
Naval Inventory Control Point

The Way Ahead
PBL

Changing our traditional support strategy - Buying performance based support package… no longer just buying parts

"Inventory Based Readiness"

"Performance Based Readiness"



Managing "Mountains" of Material

Managing Supplier Performance

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The Way Ahead
PBL

"A PBL strategy is an agreement, usually long term, in which the provider (organic, commercial, and/or public/private partnership) is incentivized and empowered to meet overarching customer oriented performance requirements (reliability, availability, etc.) in order to improve product support effectiveness while reducing Total Ownership Cost (TOC)." - DoN PBL Guidance Document, 27 JAN 2003

PBL Supplier Roles

- Warehousing
- Requirements determination
- Engineering/tech services
- Transportation
- Repair/overhaul/ replace decision
- Consumable piece parts
- Obsolescence management
- Configuration management
- Technology/reliability insertion

Purpose

Reduce Cost
Lower Response Time
Lighten Logistics Footprint

Cultivate Long Term Partnerships With Industry

Leverage Commercial Supply Chain Solutions

Procuring System Performance … NOT just parts/repairs

The Way Ahead
PBL

PBLs: One Size Does NOT fit All …Each is Unique!

- **Contract Type:**
  - Fixed, Cost +
- **Length:**
  - 5–15 Years; Base & Option(s)
- **Metrics:**
  - Availability, Reliability, LRT
- **Incentives:**
  - Profit tied to performance
  - Award fees
- **Risk Sharing:**
  - Ramp-up Periods
  - Exit Provisions
  - Gain Sharing
- **Obsolescence Management**
  - Product life cycle mgmt
  - Proactive approach

- **Long Term Partnerships:**
  - Promote Supplier Investment
  - NWCF Funding Enables Supplier ROI
  - Technology Infusion/Refresh
- **Best Business Practices:**
  - Six Sigma, Lean Logistics
  - Leverage Commercial Expertise
- **Focused on Performance**
  - Right Behavior Incentivized
  - Better Performance, More Award
- **Tracking**
  - Awarded > Monthly/Qtrly
  - In-Work > Weekly
- **DLA Involvement**
  - Markets Self as Best Value Provider

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The Way Ahead
PBL

Development Process…12-24 Months

Candidate Selection → **Business Case Analysis** → **Negotiate/ Award/**

Input From:

- **Program Office**
- **Fleet**
- **Industry**
- **ICP "Opportunity Index"**

Focus On:

- **New Systems**
- **Commercial for Life**
- **Low Reliability**
- **Poor Availability**
- **Obsolescence Challenges**

Responsibilities:

Government:

- **Must accurately capture & forecast costs of traditional government processes**

Contractor:

- **Proposal in response to SOW**
- **Incorporate commercial best practices and industry expertise… costing based on the re-engineered process**

Focus On:

- **Best Value Support**
- **Transition Plan**
- **Performance Tracking**
- **Program Reviews**

Includes Title 10 analysis prior to award

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The Way Ahead

PBL

14 SE PBLs

Aviation

Awarded

Total: 65

FY03 Obligations: $361.5M

New Systems: 19

Fielded Systems: 46

Partnerships: 9

Joint: 2

In-work

Total: 28

New Systems: 8

Fielded Systems: 20

Partnerships: 18

Joint: 1

Aviation Awarded PBLs

Contractor	PBL	Date	Type	Depot
Boeing	F-18 ARF	Pre-96	M	
Litton	Common RINU	Sep-96	F	
Lear	H-46 AHRS	Sep-97	F	
NWS Crane	P-3 SSIP	Oct-97	O	
Testek	SE AGTS	Apr-98	F	
GE Strother	Engines T-700	Sep-98	M	
GEC Marcon	Common SCADC	Sep-98	F	
Sikorsky	H-60 Damper	Mar-99	F	
Rolls-Royce	Engines T-406 PBTH	Mar-99	CLS	
Marconi	Common NGS	Jul-99	F	
Smith Ind.	F-18/F-14/AV-8 SMS	Sep-99	F	
Raytheon	Common ALR-67(v)3	Oct-99	F	
Honeywell	EA-6B EFIS	Dec-99	C	
Deval	SE AHE	Dec-99	F	
Dyncorp	SE GOSSPL	Feb-00	F	
LMIS	SE CASS/CASS CSP	Dec 97 /May 00	F	
Honeywell	S-3/E-2/C-2/F-18-A-D/ P-3 APU's	Jun-00	P	CP
Dyncorp	SE QEC	Jun-00	O	
Raytheon	V-22 NAVFLIR (renewed	Jun 00/ Mar 03	F	
FST Noris	SE CRATE (ended)	Jun-00	O	
Multi Rae	SE Gas Detector	Jun-00	F	
Sikorsky	H-53 MRH	Jul-00	M	
Sikorsky	H-53 MGear Box	Jul-00	M	
Kaman	H-2 A/C	Aug-00	F	
L-3 Comm	E-2 EMDU	Aug-00	F	
Boeing	V-22 DLRs	Jan 01	F	
NWS Crane	S-3 Elec Tubes	Apr 01	O	
TSI Inst	SE IFFITTS	Mar 01	F	
FST Jax	SE EOTS	Jan 01	O	
Rockwell	Common ARC-210	Jan 01	F	

Contractor	PBL	Date	Type	Depot
Lockheed	F-14 LANTIRN	Jan 01	F	
Michelin	Common Tires	Feb 01	F	
Jay-Em	EA-6B Main Wheels	Feb 01	C	
Lockheed	E-2 APS-145	Feb 01	M	
Boeing	F/A-18E/F FIRST	May 01	P	Multi
Charleston	P-3 EP-3J Mod	May 01	O	
Lockheed	SE EOSS+	Jun 01	F	
TRW Inc.	E-2 GRIIM RePr	Sep 01	F	
Smith Ind.	Common ASN-50	Oct 01	F	
Raytheon	H-53 HNVS FLIR (renewed	Oct 01/ Mar 03	F	
Honeywell	C-130 APU	Feb 02	F	
Honeywell	F-18 E/F APU	Feb 02	P	CP
AH-1W	AH-1W NTS	Apr 02	M	
Lockheed	H-60 Avionics	May 02	F	
FST Jax	SE SALSA	Jul 02	O	
LSI	T-2 Cockpit (renewed)	Mar 99 /Jul 02	M	
Raytheon	Common ALE-50A	Aug-02	F	
Keyport	EA-6B Tailpipes	Dec-02	O	
Rolls-Royce	Engines AE2100D3 PBTH	Dec-02	CLS	
Sikorsky	H-60 Dyn Comp	Feb-03	F	
BAE	SE EWSE (renewed)	Jan 01 /Feb-03	F	
AAI	SE JSECST	Mar 03	M	
Boeing	F/A-18 MSP (mod to ARF)	May 03	M	
GE	Engines F404	Jul 03	P	Jax
Lockheed	SE CASS Hi Power	Jul-03	F	
Kaiser	F/A-18/F-14 HUD/DDI	Sep-03	P	Jax/NI
Raytheon	H-60 FLIR	Sep 03	P	Jax
Ham Sundst	H-46 APU H-53 APU	Oct 03	P	CP
Honeywell	P-3 EDC (APU add-on)	Oct 03	P	CP
MHSCO	H-60 Tip-to-Tail	Dec 03	P	Jax/NI/CP CCAD Toby

The Way Ahead
PBL

Basic Business Overview… Differences between traditional and PBL support

Traditional

Parts support – buying parts, reactive, multiple steps, long administrative lead times, numerous stovepiped and non-integrated organizations, delays between touch points, inventory flexibility constrained by funding/FAR

Depot – output affected by numerous external variables (parts, funding, schedule)

Reliability – lack of funding for investment

Diagnostic – O/I/D maint processes/data not integrated

Contracts – Multiple/disjointed support contracts for specific parts/repairs

Vs

PBL

Parts support – buying performance, proactive, faster support due to single owner/integrator responsible from requirement to dlvy, increased funding/supplier flexibility to find/buy parts quicker

Depot – variables controlled by contractor, eng/maint/sup better synchronized

Reliability - Internal funding available for improvements if sufficient return on investment … facilitates incorporation of known solutions

Diagnostic – Integrate O/I/D maint data to reduce BCMs, insert tech reps

Contracts – One long term contract buying guaranteed performance outcome

The Way Ahead
PBL

Reasons why PBLs are different:

Improved Parts Support … Material availability increases + Logistics Response Time (LRT) decreases resulting in Improved Readiness

Depot Efficiency … Repair Turn Around Time (RTAT), Awaiting Parts (AWP), & Work in Progress (WIP) decrease

Reliability Investment … Mean Time Between Failures (MTBF) increases

Diagnostic Process Upgrades … inductions and frequency of repairs decrease

Long-term contracts … enabler for above… firm fixed price for level of performance … long-term funding commitment allows contractor to amortize investment over period of performance… structured to incentivize contractor to reduce demands and introduce efficiencies

Buying weapon system performance… optimizing logistics support

The Way Ahead
PBL

What have we learned? PBL is not just supply chain mgmt, but a combination of below… All are equally important

Industry Engineering Expertise… Single integrator with long-term perspective

- *Responsibility for multiple roles in control of single provider… Not just parts availability, but accountability of outcome/end result*

Process Improvements

- *PBLs infuse engineering and supply chain best practices in govt processes*

Supply Chain Integration

- *Optimizes logistics support by integrating the traditional fragmented supply chain segments… synchronization of all supply chain activities to create customer value*

PBL Success = Industry Engineering Expertise + Process Improvements + Supply Chain Integration

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The Way Ahead
PBL

PBL Successes … A Sampling

Improved Availability: ***CIWS … was 60%, now 89%***

F-14 Targeting System … was 73%, now 90%

Better Response: ***F-18 Stores Mgmt System … Customer Wait Time*** ***(CWT) was 47 days, now 7***

Auxiliary Power Unit (APU) … CWT was 35 days, now 38

now 6 … RTAT was 162 days,

Guaranteed Reliability: ***Radar Warning Receiver … 53% increase***

H-60 FLIR … 40% increase

Making Steady Progress … Growing PBL to "TLCSM"

Reduced Inventory: Tires … no inventory, no warehouse

The Way Ahead

PBL

TLCSM Acquisition/Sustainment Model

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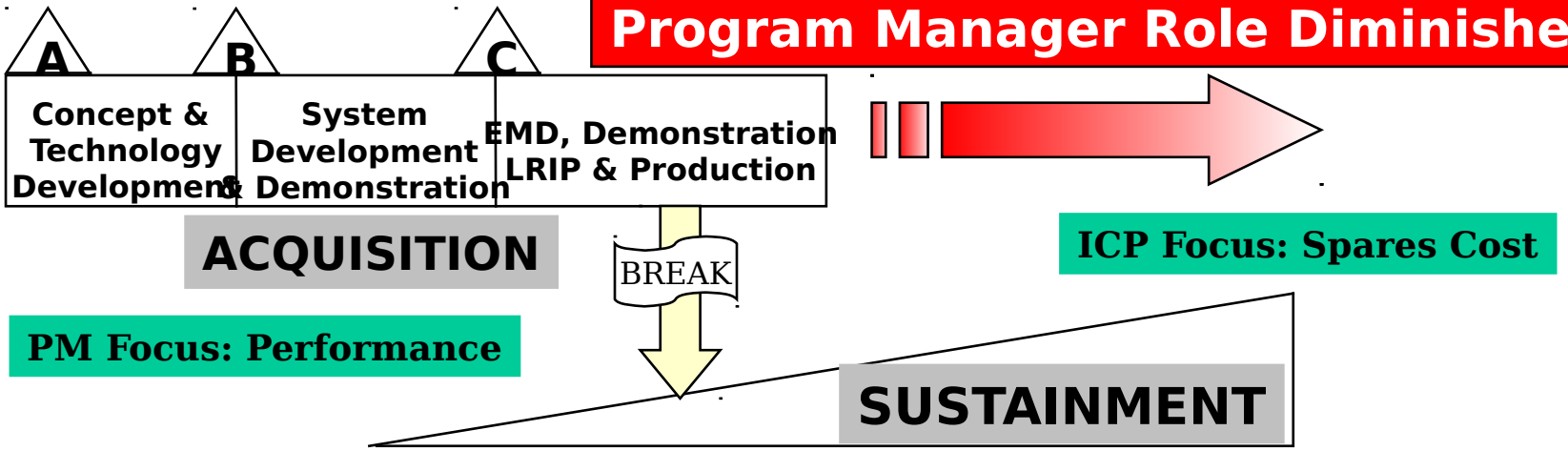
Past

Program Manager Role Diminishes



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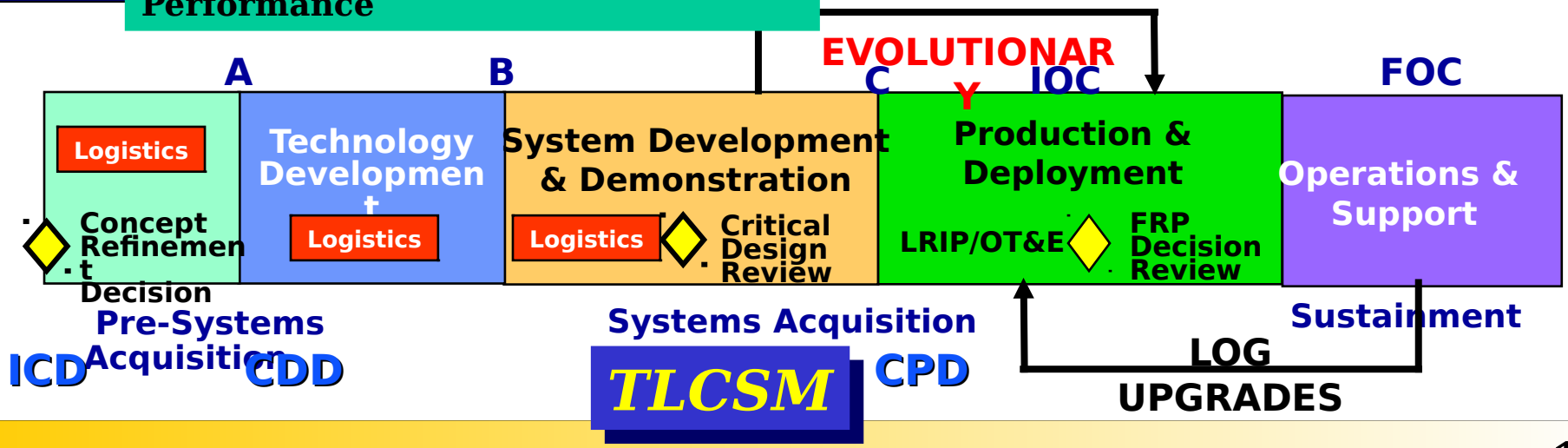
PM/ICP Focus: Support & affordable Performance

ogram Manager Role Continue



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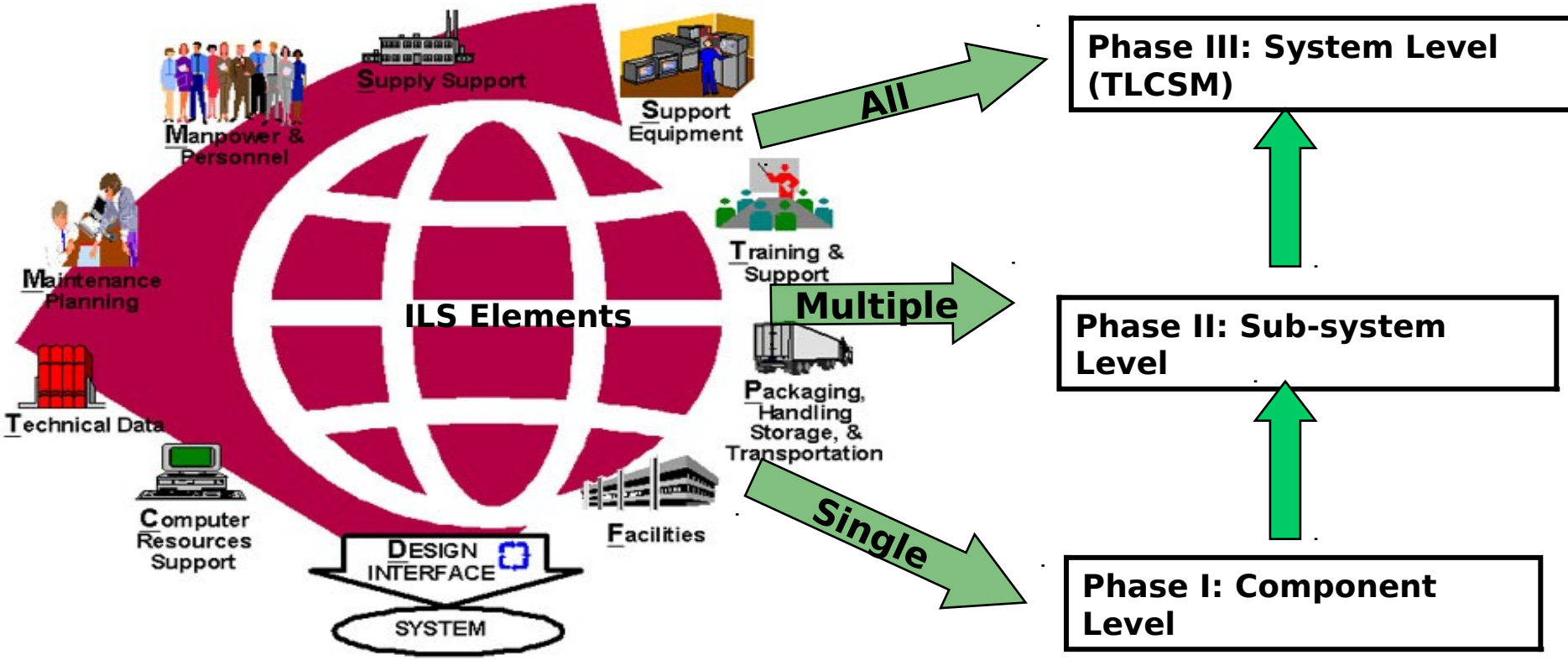
The Way Ahead
PBL

Phase I and II contracts in place… moving to Phase III

Making PBLs "Bigger" and "Broader" Approach



Integration With All Support Elements Provides Greater Opportunities For Optimal Support

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The Way Ahead
Cost-Wise Readiness

OAG Top 10 Priorities

RANKING	ISSUE
1	Legacy TPS Transition to CASS
2	MSU-200NAV Jet Air Start Unit
3	Jet Engine Test Cell Instrumentation (JETI)
4	AWM-103 SMSTS
5	Mobile Nitrogen Gas Generator
6	Oxygen Servicing Trailer Replacement
7	Fuel Qty Test Set Replacement
8	Crane for A/C & Boats
9	Shaft Engine Test Cell Instrumentation
10	CASS Block I/II Modernization

Input From:

- Program Office
- Fleet
- Industry
- ICP "Opportunity Index"

Focus On:

- New Systems
- Commercial for Life
- Low Reliability
- Poor Availability
- Obsolescence Challenges
- High Cost/High

TOP 10 READINESS DEGRADERS

RANK	DEGRADER	ISSUES	ACTIONS	GET WELL
1	JASU (GTCP-100)	Low reliability highest single SE AVDLR cost item	Procurement of MSU-200 replacement Jet Start Cart	Deliveries begin in FY04
2	Crane, Truck Mounted, Salvage, CVCC (A/S32A-35A)	Declining MTBF	Procurement of New CV Crane	Delivery beginning FY 07
3	Oxygen servicing trailer (NO-2, NO4)	Low reliability, Part shortages	Procurement of New O2 trailer	Delivery beginning FY 05
4	T56 Engine Test System (A/E37T-17)	Declining MTBF	Procurement of New TPTI Test System	Delivery beginning FY 10
5	LOX/Nitrogen Generating Plant	Low reliability	Reliability improvement ECP planned Turbo Expander Replacement submitted under PBD721 Proposal	Delivery beginning FY 05 Effort will start in FY 05, with replacement of expander in FY 06
6	Turbo Fan/Jet Engine Test System (A/F32T-10)	Low reliability, Part shortages	Procurement of new JETI Test System	Delivery began FY 03
7	Hybrid Test System (HTS)	Low reliability	Replacement by CASS/TPS	Delivery beginning in FY 07
8	Test System Turbo Fan/Jet Engine (A/M37T-23)	Declining MTBF	Procurement of New SETI Test System	Delivery beginning FY 06
9	Turboshaft Engine Test System (A/E37T24V4)	Reduced reliability	Replacement by SETI	Delivery beginning in FY 06
10	Avionics Test Set (Tailored Mini Vast)	Reduced reliability	Replacement by CASS TPS	Delivery beginning FY 05

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The Way Ahead
Cost-Wise Readiness

- **The Radar Liquid Cooling System (RLCS) - designed to cool APG-65/73 radar transmitter (top readiness degrader)**
- **Mayhew Liquid Coolant Filtration Unit (LCFU) - designed to filter PAO used in RLCS, removing impurities and air, then filling system as required**
- **Using the Mayhew LCFU to service the F/A-18 Radar Liquid Cooling System (RLCS) reduces transmitter operating temperature, which leads to:**
  - *50% Increase in MFHBF*
  - *$1.7M/Yr in cost avoidance*
- **SERMIS deficit is 99...** ($22K cost of equipm

SE Cost-Wise Readiness

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Summary

- Performance Based Logistics… a growing part of business base… buying system performance and optimized logistics support, not just parts/repairs
  - *We have several "PBLs" – we will grow to bigger/broader PBLs*
- Cost-Wise Readiness Focus…focus resources on readiness
- ICP / NAVAIR Alignment… align processes and e[illegible]al and c[illegible]

"Right Force… Right Readiness… Right Cost"

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Back-Up
PBL Info

- Dept of Navy Performance Based Logistics Guide

PDF File

- Designing and Assessing Supportability in DOD Weapon Systems: A Guide to Increased Reliability and Reduced Logistics Footprint

- DoD Template for Application of TLCSM and PBL in the Weapon System Life Cycle

PDF File

- NAVICP PBL website: https://extra.navicp.navy.mil/scs/index.htm

Microsoft Word Document